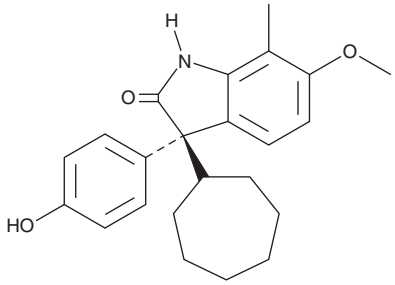
# PRODUCT INFORMATION

## Necrocide 1

*Item No. 46570*

| | |
|---|---|
| **CAS Registry No.:** | 1247028-61-0 |
| **Formal Name:** | 3-cycloheptyl-1,3-dihydro-3-(4-hydroxyphenyl)-6-methoxy-7-methyl-2H-indol-2-one |
| **Synonym:** | NC1 |
| **MF:** | $C_{23}H_{27}NO_3$ |
| **FW:** | 365.5 |
| **Purity:** | ≥98% |
| **Supplied as:** | A solid |
| **Storage:** | -20°C |
| **Stability:** | ≥4 years |




*Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.*

### Laboratory Procedures

Necrocide 1 (NC1) is supplied as a solid. A stock solution may be made by dissolving the NC1 in the solvent of choice, which should be purged with an inert gas. NC1 is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in acetonitrile.

### Description

NC1 is an activator of transient receptor potential melastatin 4 (TRPM4).[1] It induces sodium influx in HEK293 cells expressing human TRPM4 at 10 µM. NC1 increases mitochondrial membrane permeability and reactive oxygen species (ROS) levels and induces necrosis in MCF-7 breast cancer cells.[2] It reduces the proliferation of various cancer cell lines ($IC_{50}$s = 1.57-1000 nM) but not non-cancerous cell lines ($IC_{50}$s = >10,000 nM for all). NC1 induces intratumoral necrosis and decreases tumor volume in PC3 prostate cancer and MCF-7 mouse xenograft models.

### References


1. Teixeira-Duarte, C.M., Fu, W., Zeng, W., *et al.* Structural mechanism of Necrocide 1 activation of human TRPM4 that triggers necrosis by sodium overload. *Nat. Commun.* **17(1)**, 7939 (2026).
2. Zhang, J., Trojel-Hansen, C., Wang, J., *et al.* Necrocide 1 mediates necrotic cell death and immunogenic response in human cancer cells. *Cell Death Dis.* **14(4)**, 238 (2023).



**WARNING**
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 09/16/2026



**CAYMAN CHEMICAL**
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
**PHONE:** [800] 364-9897
[734] 971-3335
**FAX:** [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM